



Philosophical Transactions

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II. *A Description of some Coralls, and other curious Submarines lately sent to James Petiver, Apothecary and Fellow of the Royal Society, from the Philippine Isles by the Reverend George Joseph Carmel ; as also an Account of some Plants from Chusan an Island on the Coast of China ; Collected by Mr James Cuninghame, Chyrurgeon & F. R. S.*

The Philippine Submarines are as follows ;

1. **H**ippuris Indica albida, geniculis nigris. 1
 Hippuris faxeæ *Clus. Exotic.* 124. l. 6. c. 8. Fig.
Chabr. 576. Fig. 4. I. B. V. 3. l. 39. c. 47. Fig.

Equiseto similis faxeæ C. B. 365. 19. *Ray. H. Pl.* 68. c. 6.
H. Ox. V. 2. p. 657. 13.

I take this Corrall to be an incrustation, as it seems by its lesser Branches, the greater are striated between the joyuts.

2. Rete Philippense nigrum, telis quadrangulis duplicatis, 2

This is a rare species of Sea-fan, its texture very like Gawse, but doubly matted, as it were two folds, the base or bottom is narrow, stretching it self like an open Fan, but round without Angles, see its Figure in our Gazophylacium Naturæ & Artis. Tab. 32. Fig. 1.

3. Rete Philippense, summo albido, interne fusco, telis inordinatis. 3

The branches of this run one into another, without any reticulate order, below they are broad, stiff and brown, towards the top whitish and more flexible, many of these
 K k k k k k k k shoots

shoots not reaching to their opposite branches look like small Thorns.

4. *Coralloides Philippens. nigricans*, ramulis virgulosis inter sese connectantibus.

This branches much and runs one into another, especially the fuller grown, the larger the branches the blacker, the younger are brown.

5. *Corallium nigrum Borneocum ramulis virgultis* Mus. Periver. 177.

This differs from the last in not netting its branches, are more pleyable, observing a bushy order, that a flat and Fan-like.

6. *Myriophyllon Indiae Orientalis ramosissimum*.
an *Abies maritima Coralloides pennata subhirsuta* Breyn : prodr. 2. Fig. 35.

Breynius his Figure very well answers this submarine : Its Stalks are black, but hairy divisions brown, the least of which last thro the Microscope appears thick set with small Thorns, as you may see them exprest in the 4th Decade of my Gazophyl. Nat. & Art. Tab. 35.

7. *Myriophyllon Philippense setaceum*.

This is not branched in the main, in which it differs from the last, and in growing bushy like a Fox-tail.

8. *Alcyonium Philippense*, ramulis gelatinis implexis.

This is a very odd submarine, compos'd of a brown shining substance like Glew, somewhat brittle if hard prest, it's peculiarly matted not exactly resembling any other thing I ever yet saw; see its Figure in the 32d Table of my Gazoph. Nat. &c.

9. *Erica pelagica Philippensis carnea*.

This is a beautiful incrustated Coral, of a pale brick or flesh color, its lesser branches are finely warted and shoot, elegantly one into another, the whole is flat and flexible like a Sea Fan, its crust thin, hard, and tastes like Brick dust, the Coral underneath is of a Wainscoat colour.

10. *Coralloides epispungiosa Philippensis*, virgulis albis carneis, minoribus, punctatis.

11. Coralloides epispungiosa *Philippensis*, virgulis dilute carneis, minoribus, punctatis. 11

12. Coralloides epispungiosa *Philippensis*, virgulis saturate carneis, minoribus, punctatis. 12

13. Coralloides epispungiosa *Philippensis*, virgulis e dilute minio, minoribus, punctatis. 13

14. Coralloides epispungiosa *Philippensis*, virgulis saturate purpureis, minoribus, punctatis. *Gazoph. Nat. & Art. Tab. 31. Fig. 8.* 14

15. Coralloides epispungiosa *Philippensis*, virgulis dilute purpureis, minoribus punctatis. 15

These last differ very little but in color, some of them are speckled, and few of the twigs exceed in thickness those in a Birchen rod : The crust is hard and somewhat spongy, the body under it is brown and blackish, and near of kind to No 5. 16

16. Coralloides epispungiosa *Philippensis* virgulis paucioribus punctatis, sanguinei coloris *Gazoph Natur. Tab. 31. Fig. 12.*

This is like the foregoing, but has fewer branches.

17. Coralloides epispungiosa *PHILIP.* virgulis *Curcumæ* coloris punctatis. *The Twigs of this are somewhat thicker than the former.* 17

18. Coralloides epispungiosa *PHILIP.* virgulis albis crassioribus punctatis. 18

The Coral of this seems not to differ from No 5. the spongy incrustations, are thicker than the rest, and the punctures or holes deeper and more obvious the crust if crackt will turn round the Stalk.

19. Coralloides epispungiosa *PHILIP.* virgulis lignosis fulvi coloris sulcata & foraminibus verrucosa. 19

This differs from the 9 last in having its Twigs of a more porous woody substance, rather than like Corall, and its outward crust has a furrow on each side interperst with protuberent punctures.

20 *Fucus PHILIP. carnosus, edulis. Golo Luzon. Gazoph. Nat. Tab. 27. Fig. 12.* 20

The Chusan Plants received from Mr James Cunninghame are as follows, viz.

K k k k k k k 2

21. Lin-

21. 21. *Lingua Cervina* CHUSANENSIS maculata, media.

The Root of this is like our common Polypody with Fibres running from them, the Leaves resemble Hartstongue, but are longer and narrower, but as that bears its Seed in slant streaks on the back of the Leaves, these have them in round spots like those in Polypody, one on each side of the middle rib at near half an inch distance, beginning near the point, and reach above half the Leaf.

22. 22. *Lingua Cervina* CHUSAN. maculata, parva.

This has a fibrous Root, its Leaves have scarce any footstalks. and rarely exceed 3 inches in length, the Seed stand in round spots like the last, as large but much closer set, reaching from the middle rib to the edge of the Leaf coming down about half way.

23. 23. *Arundo* CHUSAN. polydactyloides perelegans.

This Rheed has a very beautiful tuft, compos'd of above a dozen pappose spikes, like some of our Indian downy Cocksfoot grass, each above a span long.

24. 24. *Gramen Lagopoides* CHUSAN. spicis aristatis palefcentibus.

This is next of kind to our Gr. Lagopoides Guineense Gazophil. Nat. &c. Tab. 2. Fig 7. & Mus. nest. 238. but its spikes are larger, and both glumæ & aristæ are whitish, whereas the Guinea sort, when full ripe is ferruginous, and its spike turns downwards.

Dr Hans Sloan has the only specimen I have as yet seen of this new Grass.

25. 25. *Panicum cristatum* CHUSAN: spica multiplici nuda.

This is a very elegant Grass, each Capsule somewhat resembles those of our Nasturtium verrucosum or Swines Cresses.

26. 26. *Secalis facie Frumentum* Chusanicum.

27. 27. *Cadclari* SICILIANA folio acuto. *Amaranthus Siculus* spicatus, radice perenni Boccon Plant. rarior p.

17. Fig. Almag. Botan: 26. pl. 16. Tab. 260. Fig. 2. opt
 Ray in. 14. 203.

The Bortus Malab. giving the name of Cadelari to this late discovered genus of Plants, I have chose to distinguish it under that title rather than Amaranthus, from whence it is very different, and has this peculiarity that when ripe the Seed hangs downwards. Sicily, Madera, Jamaica, and several parts of Asia produce this Plant.

28. *Perficaria* C H I N E N S I S, folio subtus albido. Mu-
 sei nostri 950. 28

This resembles our Arsmart, but the leaves underneath are very white and soft.

29. *Triopteris scandens* C H U S A N. cordato folio. 29

This is a twining Plant, like our black Bryony, and its Leaves not unlike; the Capsules resemble the Melianthus, but hath only 3 Wings containing membranaceous Seed, like those of the Oleander or Rosebay:

30. *After Eupatoroides* C H U S A N. Hyssopi folio. 30

The Leaves stand alternately on the Stalk, which towards the top branches out into many small Flowers with little radiated petala, these look at first view like our Eupatorium or Dutch Agrimony, especially in bud and at first opening.

31. *Tuffilago* C H U S A N. ramosa, fol. rotundo-glabro. 31

This hath smooth round Leaves about the Root at the time of flowering, and narrow Leaves at the Stalk which is branched, each terminating in one Flower of the same bigness with ours.

32. *Abrotanum* C H U S A N. Thalictri folio. 32

These Leaves are deeply jaggd at top, generally into 3 or 5 segments, the Flowers are extreamly small.

33. *Abrotanum* C H U S A N. segmentis foliorum tenuissime serratis. 33

The Flowers of this are as large as the common Southernwood, the Leaves finely divided and notched like those of some umbelliferous Plants.

34. *Abscinthium umbelliferum* C H U S A N. Achoavan folio. 34

Its

Its Stalk is round, hoary and lightly furrowed, the Leaves somewhat like the next, but less, and more serrated, the buds of the Flowers are compos'd of transparent membranes, and smell strong of Wormwood.

35. *Matricaria* C H U S A N. flore albo minore simplici.
an *Matricaria Japonica* fl. minore albo simplici. Breyn. prodr.
2. p. 663.

The Leaves of this are like Mugwort but less, the Flowers scarce so big as our Fetherfew,

35 36. *Matricaria* C H U S A N. fl. luteo minore simplici.
Keukhoa Chinens :

The Leaves and Flowers are much like the last, the discus is large and yellow as are the petala about it.

36 37. *Verbenaca* C H U S A N. *Majoranæ* folio subtus molli flavescente.

On each side of every joynt come forth longish Leaves, some bigger others less, soft underneath and yellowish, from some of these joynts especially towards the top come Spikes of Flowers, and Seed, after the manner of common Vervain.

37 38. *Verbenaca* C H U S A N. *Perficariæ* folio subtus pallescente.

The Stalk is for the most part 5 square, the Leaves grow opposite by turns crosswise ; it bears a long spike of Flowers, each with a long tube or neck set in a small turgid calyx.

40 40. *Teucrium* C H U S A N. fl. singulari pediculo semiunciale infidente.

Each Flower stands single on a half inch foot-stalk, with 4 long stamina, and a style like the Teucrium Boëticum.

41 41. *Teucrium Crocodilianum* *Styracis* folio minore. Gazophyl. Nat. Tab. 34. Fig. 11.

This is a peculiar Plant, with Leaves almost round, very soft and white underneath like Storax but less.

38 39. *Mentha* C H U S A N. spicata, holofericea.

The Stalks of this Plant are very hoary and soft, as are its Leaves especially the under side.

42. Alcea forte fruticosa C H U S A N. folio summo lato, subtus molli. 42

The Leaves are somewhat like our Aspen Tree or Populus tremula, very broad at the top with a small point in the middle, lightly notched, a little rough above, but underneath very soft.

43. Rubus C H U S A N. folio Corchori. 43

The twigs and footstalks are Thorny, the Leaves single, sometimes lobated, broad at base, but grow tapering to a very narrow point.

44. Rubi facie planta C H U S A N. fol. Althææ acutior. 44

The Stalks thorny, the Leaves grow alternately on short pedicles, and are some of them lobated, at the bottom of each grows a small scaly cone like bud.

45. Alectorolophos C H U S A N. viscosa, Achoavan fol. 55

This and the next seems very elegant Plants, but I dare not meddle with their descriptions until I receive better specimens of them.

46. Rapunculus seu Cardinalis forte C H U S A N. Sambuci folio. 46

47. Anonis C H U S A N. pubescens, Lupini facie. 47

This seems herbaceous, the Leaves very large, somewhat hoary, but the Stalks much more, the Flowers spicated and large, resembling the yellow Lupine, but has the face and hoariness of the common blew.

48. Astragalus C H U S A N. Sinapi filiqua. 48

These Leaves resemble the common Saint foin, the Pods about 3 inches long, with two or three swellings, and end blade pointed like the pods of Mustard.

49. Cowhage C H U S A N. floribus parvis ex alis foliorum. 49

The Stalks, young Leaves, Flowerhusks, and pods have all a rusty hoariness, in the full grown Leaves its much less; from the bosom of these comes a small spike of little Flowers, by which and its hoariness it is easily distinguish'd from all others.

50. Cyrtus C H U S A N. tetraflorus. 50

Its Leaves are small, finely veined, and end in a hair, what is

peculiar in this, is to have 4 Flowers on a naked or Leafless inch footstalk.

- 51 51. Polygala C H U S A N. fol. subrotundo spica aphylla.
This is distinguished from others, in having broader obtuse Leaves, excepting towards the top they are a little pointed, and from the middle of each leafy Stalk, comes out a naked spike of Flowers.

- 52 52. Androsace C H U S A N. cortusæ Matthioli folio Mus. nost. 858 & Gazophyl. Nat Tab. 33. Fig. 8.

- 53 53. Lyfimachia C H U S A N. Gentianellæ folio, fl. albo.
This in manner of growing resembles our yellow Loosstrife, but the Flowers are white, petala less and more pointed, its capsule ends in a Thread. I saw a branch of this in Flower and Seed with Mr Sam. Doody, which Mr George London had gathered in some Garden, I think, about Town.

- 54 54. Lyfimachia C H U S A N. spicata, Persicariæ fol. fl. exiguu.

These Leaves grow inordinately, are narrow point and base, without Footstalks, at the top of the branches grow slender spikes like Arsmart, with small Flowers and Seed vessels like Flax, but much less.

- 55 55. Ros folis C H U S A N. perelegans, caule folioso Mus. nost. 968.

This is a very peculiar sort of Sun dew, in having Leaves on the Stalks, which towards the top ramifie and Flower.

We come now to the Trees which are as follows.

- 56 56. Abies argentea C H U S A N. foliis acutissimis.

This resembles the Silver Firr, but the Leaves are somewhat serrated and very sharp.

- 57 57. Acer forte C H U S A N. folio minore trifido.

These Leaves very much resemble the Acer Monspessulanum I. B. they are smooth above, and glaucous underneath, standing on long slender reddish Stalks; the Fruit of this and the next I have not yet seen.

- 58 58. Aceris folio arbor C H U S A N. virgulis spinosissimis.

Its

Its young branches are reddish, and very full of Bryer-like Thorns, amongst these Leaves inordinately grow the base of each pedicle, leaving an impression like a V Consonant on the Stalk; the Leaves have very much the face of the common great Maple or Sycamore with long pedicles, whose base agrees with the branches.

59. Alaternus C H U S A N. Arbuti folio Gazoph. Nat. Tab. 36. Fig. Thea C H U S A N. floribus majoribus, fol. Alaterni serrato Mus. nost. 983.

59

By its Leaves and Flowers I at first took it for a Tea, but having lately received it in Berry, I find it to be of another Family. The Leaves are stiff, serrated and pointed, generally thickest set towards the tops of the branches, from the bosom of these and below grow many small Flowers close to the Stalk, which are succeeded by little berries, that are both calyculated and pointed.

60. Arbor C H U S A N. Frangulae folio majore, subtus albido molli.

60

Altho' I have not yet seen the Flower or Fruit of this Tree, yet I could not omit it because, its Leaves are very distinguishable from any that have yet come from this Island, they seem especially the young ones to have the texture and face on the upper side of our Frangula or Alder berry, yet somewhat softer, but its peculiarity is underneath, in being white, softish, and having its middle vein spongy, and towards the Stalk rusty coloured, as are its younger branches.

61. Baccifera C H U S A N. Caryophylli aromat. folio, Patsjotti flore.

61

These Leaves resemble those of Cloves, but somewhat thicker, are generally about an inch and half broad and three long, growing alternately; from the bosom of each comes three or four pentapetalose Flowers, somewhat like the Malabar Patsjotti (Hort. Malab. Vol. 5.) each filled with large cur'd like apices ending pointed, these are succeeded with black berries set in a small 5 Starr'd calyx, its point one fourth of an inch, each standing on an half inch Footstalk. Out of one Berry I took, 11 from ano-

L H H H H H H

ther

ther near 20 small shining brown Seed, of different shapes from their lying together.

26 62. *Baccharis CHUSANA*: *Ligustri facie*.

Its larger woolly twigs are smooth, cinereous and speckled, the smallest woolly, the Leaves grow by pairs, at the top come the Flowers loosely spiked, each in a small cup calyx; the Berries less than Currans, black with a bluish cast, each on a very short footstalk, and in an undetermined Cup, which seemed to want a part on one side, in each Berry is one large oval Kernel.

36 63. *Buxus CHUSANA*. *folio prælongo*.

This has the face and texture of the common Box, but the Leaves are much longer, very narrow at the base, broadest near the middle, and blunt at the end.

46 64. *Buxi affinis EMUYACA* *folio rugoso*.

The twigs are reddish and rough, as are the under side of the Leaves; but smoother above, they stand on very short footstalks, and have this particular, that the upper half of each Leaf is somewhat lobated or largest, at the ends of the branches grow commonly two or more rough capsules, gaping like the Fagars, each of these contains one or two black oval shining seed somewhat bigger than an Oat.

56 65. *Camphora Officinarum*. The Camphire Tree.

To the Synonyms of this Tree mentioned in the Philosophical Transactions, No 236. p. 39. pl. 35 I shall only add the following, viz. *Campre* Pomel *Hist. gen. des Drogues* L. 7. p. 246. c. 12.

56 *Caphura* Garz. & Acoft. *Clus Exot* 160. & 258. *I. B. prodr*: 28. pl. 21.

Caphura quæ Salicis folio dicitur *I. B. V. 1: L. 9. c. 54: p. 338. Fig.*

57 This the Arabians call *Chafur* and *Chapur*, by some *Caphura*, it was known by *Avicen* and *Serapio*, but the ancient Greeks were strangers to it, *Ætius* amongst the Moderns takes notice of it, it is very well Figur'd, and amply described in *Breynius's Century* and first *Prodromus*.

66. *Castanea* CHUSAN. folio fere ferrato, subtus glauco: 66
The twigs are blackish with many small warts, the Leaves grow inordinately (on short pedicles) most of them more or less thorny, dened and some smooth, underneath they are glaucous and somewhat soft.
67. *Coccifera* CHUSAN. *Coryli* folio, floribus exiguis 67
racemiferis Gazophyl. nost. Nat. Tab. 26. Fig.
Its twigs are speckl'd, the Leaves of different magnitude and breadth, lightly serrated, standing on an inch footstalk ; at the top of each twig grows a small racemose spike of little Flowers, which are succeeded by dry berries, growing like Currans.
I call such Trees and Shrubs Cocciferæ as have dry Berries, like the Cocculus Indiæ in opposition to those, that are moist as Gooseberries, &c.
68. *Coccifera* Emuyaca Chamænerii folio, marginibus 68
crispis.
The stalk of this is furrowed irregularly like Elder; its Leaves have the face and shape of a Willow Bay, but peculiarize themselves by drawing their edges unevenly inwards, which swell the upper side and make them seem curl'd, their footstalks are scarce half an inch, its Cocca or dry berry, like the Allspice or Jamaica Pepper, is set in a four or five starr'd calyx in a loose cluster, each on a half inch footstalk, between the outward Skin and Kernel (which is solid and very hard) is but little space.
69. *Crista Pavonis* CHINENSIS *Abrus* folio. Boya- 69
hoa Herb nost. Chin. Tab. 2. Fig. 4. *Hoa* in the Chinese Language signifies a Flower. The Leaves are much less and narrower than the American kind, otherwise in its Spines, Flowers and way of growing it very much resembles it.
70. *Cupressus* CHUSAN. *Abietis* folio Gazoph: nost. 70
Nat. Tab. 6. Fig. 5. where you may with its Figure see a description of its Leaves and Seed, it bears its Cones single at the end of each branch, the Scales of these, when they are open or crackt are ferrated and rugged.
71. *Evonymo affinis* CHUSAN. *Fraxini* folio, sem. 71
nigro.

The Leaves grow opposite, and have generally three pair tail'd, i. e. one at the end ; the footstalk very short, and next the tail scarce any : The Fruit grows in clusters, each husk rugose, including one black shining Seed.

72 72. *Fagara Emuyaca Fraxini folio.*

This is distinguish'd from the next in having much broader Leaves, they grow opposite and are much like the Ash ; the Berries are about the bigness of Pepper, and grow in small Clusters ; the tender shoots and first sprouts are prickly, in the more grown they are not so discernable. I have not as yet observed any prickles on the Leaves of this kind except in its first shoots, which are very small and wear off as they grow older.

I call those Trees and Shrubs *Fagaræ*, whose Berries split like those Figured by Garcias ab Horto, and from him in Gerard Parkinson, Clusius and other Authors, there are also these peculiars, which generally attend this Tribe, viz. the branches prickly and oftentimes the Leaves, on the under side and middle rib frequently, and sometimes on both sides and the lesser veins ; the berries split in the middle and discover a black shining Seed, the outer skin rough, tastes hot and spicy ; the Leaves in all I have yet observed are perforated like St John's wort, Orange leaves, Myrtle, &c. The Hercules and prickly yellow woods of the West Indies are of this Family.

73 73. *Fagara C H U S A N. Fraxini folio angustiore.*

The Leaves of this are not only narrower than the last, but prickly underneath, and are very thick set on the branches and between the Leaves.

74 74. *Fagara C H U S A N. Rhois Virginianæ folio, caule alato.* What chaw Chinens.

These Leaves very much resemble the Virginian Sumach, with a winged or welted Stalk, with lightly serrated transparent notches. Dr Sloan has a fair specimen of this in Fruit, which ripens in October.

75 75. *Frutex C H U S A N. Fagi foliis, fructu sulcato.*

This very much resembles No 926 Musci nostri, but is in all parts much larger, especially its Leaves, which are very like the
Ca-

Carolina Plant at No 915. in the same Century ; Its Fruit grows naked at the top of the branches from a reverse calyx, and is sulcated like the capsule of an Adhatoda.

76. Gelsemium C H U S A N fol. Betæ hirsuto.

The Leaves somewhat like Beet, but hoary, the Flower is leaved, in shape much resembling the Rose bay or Nerium, the apices on each stamen seem double headed, the calyx is quinquefid and hoary, it grows spicated as I observed in a very large specimen amongst Dr Sloans dry Plants.

77. Hedera arborea C. B. 305. 1. Phyt. 606. 1. C. B. in Matth. 466. Fig. 1.

Hedera Chabr. 115. Fig. 1. I. B. V. 2. L. 15. p. III. Fig. I. B. prodr. 31. 4.

Hedera corymbosa Ger. 708. Fig. 1. id. emac. 858. Fig. 1 Lob. obs. 336. Fig. 3. Lob. 1. c. 614.

Corymbosa Hedera communis Lob Advers. 269. Ray. H. Pl. 1505. 1.

I can see no difference between this and our common Tree Ivy.

78. Spurge Laurel.

Laureola Ger. 1404. Fig. Ger. emac. 1219. Fig. Park. 205 Fig.

Laureola sempervirens fl. viridi, quibusdam Laureola mas C. B. 262. 1. Sempervirens fl. luteola I. B. L. 5. p. 564. Fig. 11. B. prodr. 17. pl. 4.

Chamædaphnoides & Laureola Chabr 45. Fig. 3.

79. Lycium C H U S A N. Pruni minoris folio.

The Twigs of this end in a Thorn, the Leaves are like the Slow, but less, finely serrated growing inordinately on very short Stalks The Berries are black and wrinkled like Pepper, and of that bigness, they stand on a $\frac{1}{4}$ inch footstalk in a small round Calyx, under the thin outer Skin lyes one or two Kernels which the furrow of the Berry discovers when the last.

80. Mandarum forte C H U S A N. fol. acuminato alte bifido.

The Leaves which are all of this Plant I have yet seen, seem to be of the Malabar kind of Manduru, this is different from 3 or 4 sorts, I have already from those parts, its more pointed, deep cut, and glaucous underneath; I will give a Figure of it as soon as I receive it in Flower and Fruit.

81 81. Mori facie C H U S A N. folio subtus molli ferrugineo.

82 82. Ou tum chu P. le Compte.

Gou tum thu Herb. nost. C H I N E N S. pict. Tab. 6. Fig. 1. & Gazoph. Nat. Tab. 27. Fig,

Outumchu C H I N E N S. folio trifido, paralis bacciferis.

This is a wonderful Tree and very particular in the product of its berries (which I take to be the Fruit) and is after the following manner as I observed it, viz. The Flowers grow on its own Branch (i. e. separate from its Leaves) in a large loose or sparst Tuft, after the manner of Fraxinella or Dittander, from the larger Stem each little one has many Flowers, compos'd of 5 broad green Petala or Leaves like those of our Adders-Tongue, every one standing on an half inch pedicle starwise, on both the Edges of these grow one or more Stalkless Berries, of the bigness of Holly, rugged now dry, I opened one of them, it had a large white Cavity and a small decayed substance only remained in it.

83 83. Paliurus Emuyaca major, fol. rotundiore.

This seems to differ from our European sort in having its Leaves much larger and round.

84 84. Palmæ Christi vulgaris facie, Frute C H U S A N. caulibus & foliis pubescentibus.

These Leaves have the shape of the common Palma Christi, but are somewhat hoary as are its Stalks and Branches; I observe this in it particular, very near the basis of the Footstalk of each Leaf it hath 2 long and very narrow Threadlike Auricles,

85 85. Pimenta C H U S A N. folio Alaterni Gazoph. Nat. Tab. 26. Fig.

Thea **C H U S A N.** floribus minoribus fol. Alaterni cuspidato Mus. nost. 984.

Its Leaves stand on short Footstalks are pointed, stiff and somewhat notcht, from the Bosom of these and at the top of the Branches come forth many small Flowers, full of Stamina, like the Tea but much less, which made me conclude it was of that Family ; but Mr Cunninghame hath since sent it me in Fruit, which I find a small dry Berry of an oval bottled shape coronated somewhat like a Clove

86. Populi facie **C H U S A N.** folio subtus molli ferrugineo.

This has the shape, thickness and softness of Abele Leaves, but instead of white is rusty coloured underneath.

87. Quercus **C H U S A N.** Castaneæ folio pubescente. 78

The Stalk and underside of the Leaves are hoary, its Catkin or Julius round and echinated as Mr Cunninghame says, but its Acorn small and smooth.

88. Rhamnus Emuyacus maritimus fl. ceruleo. 88

The Leaves like Sea Purslain but smaller and near Stalkless, from them towards the top of the Branches come 2 or 3 pentapetalous or 5 Leaved Flowers, set in a like divided calyx, the footstalks of some of them are near half an inch.

89. Rhus Emuyaca fol. ferrato subtus molli, rachi alato. 98

Some of these Leaves are broader and more or less serrated than others, the Stalk is larger or smaller wing'd as the Twigs are older or younger : Mr Cunninghame says they eat the Berries which are sower and have a Dew on them, he farther observes that from the broaken Branches there issues out a Turpentine-like Balsamick Liquor.

90. Ricinus **CHINENSIS** sebifera Populi nigrae folio Gazoph. Nat. Tab. 34. Fig. 3. & Musei nost. 965. Kieu-yeu P. Martini in Atl. Sinens : Arbor Sebacea P. le Compte. 90

Arbor Sinenfis pinguedinem Sebi instar ferens Jonst. Don-drolog. p. 42. 12.

The Leaves grow alternately on long slender footstalks, some of them much extended in the middle and very sharp pointed : The Flowers are yellow, mighty small, and grow in a slender Catkin like those in Hazel : The Fruit whole is about the bigness of a middling Nut, smooth, blackish and trifurcated, opening into three parts discovers as many white Seed, from whence and its Kernels I suppose the suet or fat is produced, each being covered with a white fatty body, under which is a brown hard shell containing an unctuous Kernel, which by bruising turns almost wholly to an Oyl.

Mr Sam. Brown first sent me this some years ago from China, since which I have received it from Emuy and Chusan. There are two young Trees of this now growing Sept. 27. 1703. in the Charter-house, rais'd this year by Mr Cole Gardiner of that place.

91 Ricinus forte C H U S A N. Tiliæ folio.

These Leaves grow alternately on footstalks, some above two inches long, of the bigness of the Mulberry and Lime Tree, but not serrated ; at the top grow spikes of thrummy Flowers, like the common Palma Christi, but closer set. I hope the next Ships from Chusan will bring me it in Fruit, and then I shall give a farther description of it.

92 92. Thea C H I N E N S I S vera potulenta Gaz. Nat. Tab. 21. Fig.

Chaa C. B. 147. 7. Chaa herba Japoniæ I. B. V. 3. L. 27. p. 5.

Evonymo affinis arbor Orientalis Nucifera, fl. Roseo Pluk. Phyt. Tab. 88. Fig. 6.

Frutex Thee Bont. Hist. Nat. L. 6. p. 88. Fig.

Herba Te Thee Sinense Joncquet stirp. offic. obscur. p. 25.

Styraci & Evonymo media affinis, Thea Sinensium. f. Tsia Japonensibus fl. simplici Breyn. prodr. 2.

The Sinensium Tsia Japonensibus Breyn. Cent. III. c. 52. & Excerpt. ex observat. Will. ten Rhyne de Frutice Thee Ejusd. Cent.

The s. Thea Indorum & Chinenfium Worm: Mus: 165. Fig. Folij. Thea

Thea Officinarum Dale Pharm. 472. Ray H. Pl. 1619.

Thee Pomet Hist. gen. des Drogues pt. 1. l. 5. p. 143. c.

5. Fig.

The principal Authors which have given us the Description, Vertues, Culture, Curing, &c. of this Shrub, are Bontius, Breynius, du Four, Ovington, Pecklin, Pomet, Ray & Tulpius.

93. Thea CHINENSIS Pimentæ Jamaicensis folio, flore Rosaceo simplici Gaz. nost. Nat. Tab. 33. Fig. 4.

93

Swa Tea s. Cha hoa Chinenf. Herb. nost. Chin. pict. Tab. vi. Fig. xi.

Hoa in the Chinese Language signifies a Flower ; and this Plant has a very beautiful one, for which reason and the variation of them (some being single and of a deep red as this, others white and some strip'd, there are also of these Colours with double Flowers) they and the Japonese keep them as an Ornament in their Gardens.

Of these Leaves some are rounder, others pointed, they have the shape and stiffness of the All-spice or Jamaica Pepper, are somewhat serrated and grow irregularly on short thick footstalks, the young Flower-bud is scal'd like a Cone, when larger the Squamae are whitish and Velvety, except the edges which are brown and transparent. The Flowers deep red, 5 Leaved and as big as a single Rose, and like it full of threads with yellow apices or beads. The Fruit about the bigness of a Chestnut, somewhat triangular, including under a very thick woody shell several Seeds disposed into 3 Cells. It Flowers in February.

94. Thymelea CHUSAN. Cydoniæ folio.

94

The Flowers are like Jasmin, but 4 Leaved, its Tube or Neck hoary and about half an inch long.

95. Thymelea CHUSAN. Myrti Roman folio.

95

96. Vitis CHUSAN, trifido folio.

96

97. Vitis CHUSAN. fol. parvo molli.

A Description of these 3 last and some others, with their Figures, &c. shall be the subject of another Paper.

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III: Part